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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEB - 7 1995

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the matter of)

)
Amendment of Parts 21 and 74 of the)
Commission's Rules With Regard to)
Filing Procedures in the Multipoint)
Distribution Service and in the)
Instructional Television Fixed Service)

MM Docket No. 94-131 ✓

)
and)

)
Implementation of Section 309(j) of the)
Communications Act-Competitive Bidding)

PP Docket No. 93-253

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COMMENTS IN REPLY TO ORIGINAL COMMENTS

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February 7, 1995

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I. INTRODUCTION

Hardin and Associates, Inc. ("Hardin"), a professional engineering firm licensed in the Commonwealth of Virginia and specializing in the licensing, design and construction of the Wireless cable and ITFS systems, hereby submits the following additional comments in reply to the original comments on the Commissions' Notice of Proposed Rulemaking, MM Docket No. 94-131 released December 1, 1994 ("NPRM"). Hardin submitted original comments on January 23, 1995.

II. EXPANDED PROTECTED SERVICE AREA

Hardin wholeheartedly endorses the recommendation of the Wireless Cable Association International, Inc. ("WCAI") and the Coalition of Wireless Cable Operators ("Operators") that the Commission needs to address the issue of an expanded protected service area ("PSA").¹ The Commission's current definition of a PSA, independent of an MDS station's operational parameters, is woefully inadequate. Hardin urges the Commission to adopt the recommendations made by the WCAI in its petition for reconsideration in General Docket Nos. 90-54 and 80-113 which defines the PSA of an MDS station in terms of the operational

¹Joint comments were filed by ACS Enterprises, Inc., Baton Rouge Wireless Cable Television LLC, Cablemaxx, Inc., Multimedia Development Corp., Rapid Choice TV, Inc., Shreveport Wireless Cable Television Partnership, Superchannels of Las Vegas, Inc. Wireless Holdings, Inc., XYZ Microwave Systems, Inc., together the Coalition of Wireless Cable Operators.

parameters and the ability of a station to actually serve a specific area. Before implementing dramatic changes to the way new MDS licenses are issued, the Commission must take steps to insure existing stations are sufficiently protected from interference within the actual area of service. The WCAI proposal is tremendously more effective in providing the necessary protection than the Commission's current arbitrary policies. There are numerous examples of cochannel stations spaced just far enough apart to protect the 15 mile PSAs but providing insufficient protection to the area between the two station's PSA boundaries. Hardin fails to understand how the Commission is serving the public interest by leaving large areas unprotected from interference, but with sufficient signal level from either station to provide excellent quality service if the interference did not exist. How would the Commission explain to a disgruntled MDS subscriber, receiving excellent quality service for years, that the reason interference has suddenly begun to destroy the quality of their movie service is because another station has been licensed too close to the existing service and the FCC does not think this subscriber location warrants protection from interference? Obviously the public interest is best served by licensing MDS stations with PSAs which are representative of the area which can be served with a quality product.

For similar reasons, Hardin is vehemently against the proposal submitted in the original comments of the Richard L. Vega Group ("Vega Group") supporting a fixed 50 mile separation to identify

mutually exclusive applications and the submission of a short form application only identifying cochannel and adjacent channel stations within 50 miles of a proposed transmitter site. MDS technology can easily radiate signals beyond 50 miles. Actually, if two stations are separated by 50 miles, the distance from one transmit site to the edge of the other station's PSA boundary is only 35 miles. Utilizing flat earth calculations, it would only require a transmit antenna height of 375' feet above ground to achieve unobstructed electrical path into each PSA. Transmit antenna heights equal to or greater than this are quite common in MDS service. Therefore, one can easily see an arbitrary 50 mile separation criterion does not adequately identify or prevent potential interference situations.

III. COMMENTS IN SUPPORT OF THE FILING WINDOW SYSTEM

Hardin is pleased the majority of comments favor the filing window system over the other two alternatives proposed by the Commission. Hardin would like to stress to the Commission that none of the proponents of the MSA/RSA/ADI approach were able to propose a suitable means of providing interference protection. The reason is because there is none.

IV. 100 MILE MAPS

Hardin agrees with the Vega Group regarding the confusion surrounding the comments filed previously by Hardin on the use of

radio shadow maps to aid in the process of identifying potential interference situations in an MDS application or modification.² Hardin would like to clarify its position once again.

1. Hardin supports the use of radio shadow maps to identify all cochannel stations within 100 miles which may have unobstructed electrical path into their PSAs.

2. If unobstructed electrical paths exist into a PSA, the 45 dB D/U contour should be plotted to identify areas outside of the contour but within the PSA which violate the 45 dB criterion. A single map, of a scale no smaller than 1:1,000,000, should be provided for each station with unobstructed electrical path on an 8 1/2 by 11 inch page showing the PSA boundary and the D/U contour. Otherwise, the resolution may be such as to mask small areas with unobstructed electrical path.

3. If the PSA is completely terrain blocked, there should be no requirement to plot the D/U contour.

Hardin agrees with the comments of Marshall Communications concerning the lack of need for 100 mile maps of adjacent channel stations. Investigating the potential for adjacent channel

²Hardin filed comments which were partially adopted in Report and Order in PR Docket No. 92-80 and filed a Motion for Partial Reconsideration in an attempt to clarify the original comments.

interference within 50 miles should be more than sufficient.

V. ELIMINATION OF "DAISY-CHAINS" AND MUTUAL EXCLUSIVITY

Hardin agrees with the proposal by Vega Group and American Telecasting, Inc. regarding a period of time for amendment of applications designated as mutually exclusive prior to going into the competitive bidding process. Many times there are minor technical modifications which can be made to applications to eliminate the mutual exclusivity and break the "daisy-chain". The 30 day time period recommended by the Vega Group seems reasonable.

VI. ELECTRONIC FILING

Hardin supports the Commission's initiative to implement an electronic filing system as long as the system provides the means for conveying all of the necessary technical information, including graphics, in an expedient and cost efficient manner. Hardin agrees with the comments of Marshall Communications concerning the electronic filing of graphics utilizing a standard HPGL file format. HPGL is a widely accepted standard and should provide an excellent means for conveying graphics in an electronic filing system.

VII. ADDITIONAL COMMENTS

Hardin agrees with the comments of United States Wireless

Cable and the Operators regarding the elimination of the requirement to serve ITFS licensees and permittees with copies of applications or modifications and the ridiculous 120 day period of time to file petitions to deny. Even within their own service, ITFS licensees and permittees are not served with applications for new or modified cochannel or adjacent channel facilities but instead must monitor public notices for changes which may affect their station. It would seem if the ITFS licensees and permittee are used to monitoring public notices currently, this same process would be reasonable for dealing with modifications to MDS stations.

Hardin also agrees with the comments of United States Wireless regarding the inclusion of Wireless cable operators in the first filing window. An operator could be a lessee of ITFS or MDS channels, not necessarily the licensee.

Respectfully Submitted,

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